WORLDSTAR
DRIVE-THRU TIMING SYSTEM

OPERATION AND INSTALLATION MANUAL

WST13

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1 INTRODUCTION

GENERAL INFORMATION

- The Worldstar Drive-Thru Timing System offers a user friendly and efficient way to time events as vehicles progress through a drive-thru lane. The information is not only displayed as it occurs, but is also saved and processed to provide various reports.

- The system services a single lane with three detection points. The first detection point is at the menu board, while the second is at the pay window and the third is at the service window. This detection combination gives time at the menu board, time at the pay window, time at the service window, and total line time. The system can accommodate up to 12 cars between, and including, the menu board, pay window, and service window.

- The programming of the timer is accomplished by using the keypad and a pre-assigned Security Code. Programming Instructions are found on the inside of the timer cover, as well as in Section 6 of this manual.

- Once the timer has been programmed initially, *changes* can be made and *reports printed* by simply entering the Security Code, and then pressing the appropriate keys.

- Keys used for setting functions may be pressed to display the present setting of that function. The Security Code is not required to check these settings. The Security Code is required, however, to *change* the settings.

- The total number of cars serviced during the current day can be displayed by pressing **Individual Car Print** when the security code is not active.

- When the vehicle time exceeds the **Minimum Goal Time** (total time), a hi/low tone sounds for the programmed duration. When the service window time exceeds the **Minimum Goal Time** (window time), a low/hi tone sounds for 3 seconds. A low tone is repeated every 15 seconds until the vehicle leaves the detection area.

- When the total vehicle time is less than the **Minimum Goal Time**, an award tone sounds, if this function is enabled.

- When the vehicle time exceeds the **Maximum Goal Time**, a tone sounds to indicate that this goal time has been exceeded. The tone will be repeated every 45 seconds until the vehicle leaves the detection area.

- The system prints end of hour, end of daypart, as well as end of day reports. This report includes today, week to date, month to date and year to date information. These can be printed as a hard copy or, with an optional computer interface, downloaded to a computer.

- The current hourly average time for **Menu**, **Pay Window, Service Window** and **Total** times may be displayed on the main timer unit by entering the security code and pressing the appropriate key.

- The timer divides the 24 hour day into 5 parts, called Dayparts. These Dayparts begin and end on even hours, and are factory programmable. The standard settings are:

Daypart 1	04:00 - 10:00
Daypart 2	10:00 - 14:00
Daypart 3	14:00 - 17:00
Daypart 4	17:00 - 20:00
Daypart 5	20:00 - 04:00

2 TIMER UNIT

KEYPAD

- **LANE 1** Enables Lane 1 functions
- **LANE 2** Used as shift key for this model to enter service window minimum and maximum goal times
- **SECURITY CODE** Allows entry of security code
- **ENTER** Enters data
- **AWARD TONE** Enables/disables award tone
- **SET DELAY** Sets amount of time between arrival of vehicle and start of timing sequence
- **SET SYSTEM STOP TIME** Sets time system is to stop (go off line). System will automatically restart at beginning of Daypart 1, which is a factory programmed time, specified by the customer when the unit is ordered.
- **SET 24 HOUR TIME** Sets time of day in 24 hour time
- **SET MONTH DAY YEAR SOW** Sets current date and start of week (SOW)
- **SET MINIMUM GOAL TIME** Sets minimum goal time for total line or service window, when used with the shift key
- **SET MAXIMUM GOAL TIME** Sets maximum goal time for total line or service window, when used with the shift key
- **SET MINIMUM GOAL TONE** Sets duration of minimum goal tone for total line and service window
- **SET MAXIMUM GOAL TIME** Sets duration of maximum goal tone for total line and service window

- **INDIVIDUAL CAR PRINT** Enables/disables printing of individual car data when security code is used or displays total number of cars for the current day

- **ALERT TONE** Selects volume (high or low) of alert tone, or allows tone to be turned off (no light)

- **MODEM** Enables modem function (if unit is so equipped) and computer interface mode

- **AVERAGE MENU TIME** Displays current hourly average menu time

- **AVERAGE GREET TIME** Not used on this model

- **AVERAGE PAY WINDOW TIME** Displays current hourly average pay window time

- **AVERAGE SERVICE WINDOW TIME** Displays current hourly average service window time if the security code is not used, or displays the percent of cars less than the service window maximum goal time

- **AVERAGE TRAVEL TIME** Displays current hourly average travel time

- **AVERAGE TOTAL TIME** Displays current average total time for the current day

SPECIFICATIONS

- 12VDC wall-mounted power supply
- 3 inch LED display
- Supports 2 remote displays
- Vehicle detection via either loop or sonar detectors for 3 points
- Wall mounted

- Stainless steel cabinet (13.5”H X 8.75”W X 1.125”D)
- Supports a serial printer at 9600 baud
- Optional RS232 computer interface at 9600 baud
- Optional internal 2400 baud modem for remote data gathering, upgrading, and troubleshooting

3 PRINTER

The printer provided with the Timing System is a compact, desk top, impact dot matrix printer. It is shipped with a roll of one part paper.

The manufacturer's user's manual is included for specific operating instructions.

It is important to **keep the printer on at all times**.

4 REMOTE DISPLAY

DESCRIPTION

The remote display provides a remote readout and speaker to communicate timing information. For single lane, single point timers, the display and sound are the same as on the main timer unit. Two remote displays may be used for single lane multi-point installations. For dual lane systems, one remote displays per lane may be used to display data for that lane.

SPECIFICATIONS

- 3 inch red LED display
- Stainless steel cabinet (5”H X 8.75”W X 1.125”D)
- Wall mounted
- Connected to timer by 36 foot modular cable (longer cable can be special ordered)
- Optional red/green display is available. This display shows times in green until the minimum goal time is exceeded than changes to red. Averages are shown in green.

5 DETECTORS

LOOP DETECTORS

This type of system consists of two parts. The first is the control box which is mounted inside the building and is wired directly to the timer. The control box requires 120VAC, 60 Hz power. The second part is the detector loop. This is located either just beneath the driveway surface or on the building wall at each point where detection is required. The detector loop is connected to the loop detector and then routed to the control box.

SONAR DETECTORS

The sonar detector is contained in a single box which is connected to the timer by a cable. A separate sonar is located at each detection point. The sonars are normally mounted approximately 2 feet above the surface of the driveway.

6 PROGRAMMING

PROGRAMMING INSTRUCTIONS

ENTER SECURITY CODE

- Press *SECURITY CODE.*
- Enter your assigned security code.
- Press *ENTER.*

Note: Security code is required to use keypad. If more than 30 seconds elapses between keystrokes when using the keypad, you *must* re-enter your security code.

PROGRAMMING

- **Press** *AWARD TONE* once to turn *on*, then a second time to turn *off* (red LED indicates on or off).
- **Press** *SET DELAY*, then enter time you wish to delay before starting to count (0-59 seconds). Press *ENTER.*
- **Press** *SET SYSTEM STOP TIME*, then enter the time when your store closes using *24 hour time* (i.e. 11:00 PM = 23:00), or enter 24:00 to disable. Press *ENTER*. Timing will resume at daypart 1.
- **Press** *SET 24 HOUR TIME*, then enter the time of day using *24 hour time*. Press *ENTER*.
- **Press** *SET MONTH DAY YEAR S.O.W.* (Start Of Week). For MONTH, enter 1-12 to indicate current month, and then press *ENTER*. For DAY, first enter day of month (1-31) and press *ENTER*, and then enter day of week (1-7) and press *ENTER*. For YEAR, enter year and press *ENTER*. For S.O.W., enter number of day of week on which you start business (Sunday=1, Saturday=7), and press *ENTER.*
- **Press** *SET MINIMUM GOAL TIME* to change (otherwise, default time is 2:30), then enter time until first alert tone sounds, and press *ENTER.*
- **Press** *SET MAXIMUM GOAL TIME* to change (otherwise, default time is 3:30), then enter time until second alert tone sounds, and press *ENTER*.
- **Press** *SET MINIMUM GOAL TONE* to change tone duration (otherwise, default duration is 3 seconds), then enter number of seconds tone will sound, and press *ENTER.*
- **Press** *SET MAXIMUM GOAL TONE* to change tone duration (otherwise, default duration is 3 seconds), then enter number of seconds tone will sound, and press *ENTER.*
- **Press** *INDIVIDUAL CAR PRINT* once to turn *on*, then a second time to turn *off* (red LED indicates on or off).

SETTING OTHER PROGRAM FUNCTIONS

- **Press** *ALERT TONE* until desired LED is lit for *HIGH*, or *LOW*, or no light for *OFF*.
- **Press** *MODEM* to activate. It should not be activated unless the modem or computer download function is to be used. This temporarily disables the timing functions.
- Refer to manual for demand print and display functions.

7 REPORTS

PROGRAMMED AUTOMATIC REPORTS

Hourly, daypart, and end of day reports are printed at the end of each hour or daypart, or day, on the hour. If there is a car present, printing will be delayed until the car clears the detector area.

The following are examples of hourly, daypart and end of day printouts:

HOURLY REPORT PRINTOUT

```
              14:00 - 15:00

                     HOURLY         ACCUM
AVG. MNU BD TIME      00:27         00:25
AVG. PAY WINDOW TIME  00:29         00:26
AVG. WINDOW TIME      00:31         00:27
AVG. TOTAL TIME       03:05         02:46
% < MIN GOAL TOTAL     75.0          93.0
% < MAX GOAL TOTAL     15.0           3.0
% < MAX GOAL WIN       45.3          56.7
TOTAL CARS              004           029
```

DAYPART REPORT PRINTOUT

```
     DAYPART 3      14:00 - 17:00

AVG. MNU BD TIME          00:25
AVG. PAY WINDOW TIME      00:26
AVG. WINDOW TIME          00:27
AVG. TOTAL TIME           02:46
% BELOW MIN GOAL           93.0
% BELOW MAX GOAL            3.0
TOTAL CARS                 0029
```

END OF DAY REPORT PRINTOUT

MENU BD AVG. TIME SUMMARY

DAYPART	TODAY	WEEK TO DATE	MONTH TO DATE	YEAR TO DATE
1	00:32	00:34	00:34	00:34
2	00:38	00:38	00:38	00:38
3	00:44	00:40	00:40	00:40
4	00:40	00:39	00:39	00:39
5	00:37	00:34	00:34	00:34
DAY TOT	00:37	00:35	00:35	00:35

PAY WINDOW AVG. TIME SUMMARY

DAYPART	TODAY	WEEK TO DATE	MONTH TO DATE	YEAR TO DATE
1	00:29	00:31	00:31	00:31
2	00:35	00:35	00:35	00:35
3	00:41	00:37	00:37	00:37
4	00:37	00:36	00:36	00:36
5	00:34	00:31	00:31	00:31
DAY TOT	00:34	00:32	00:32	00:32

SRV WIN AVG. TIME SUMMARY

DAYPART	TODAY	WEEK TO DATE	MONTH TO DATE	YEAR TO DATE
1	00:31	00:31	00:31	00:31
2	00:31	00:22	00:22	00:22
3	00:27	00:30	00:30	00:30
4	00:37	00:29	00:29	00:29
5	00:30	00:29	00:29	00:29
DAY TOT	00:30	00:28	00:28	00:28

TOTAL AVG. TIME SUMMARY

DAYPART	TODAY	WEEK TO DATE	MONTH TO DATE	YEAR TO DATE
1	03:07	03:09	03:09	03:09
2	02:17	02:53	02:53	02:53
3	04:52	04:02	04:02	04:02
4	02:25	02:54	02:54	02:54
5	03:54	03:49	03:49	03:49
DAY TOT	03:27	03:25	03:25	03:25

END OF DAY REPORT PRINTOUT CONT.

% BELOW MIN GOAL SUMMARY

DAYPART	TODAY	WEEK TO DATE	MONTH TO DATE	YEAR TO DATE
1	11.1	15.3	15.3	15.3
2	18.4	19.3	19.3	19.3
3	13.6	16.9	16.9	16.9
4	16.0	15.9	15.9	15.9
5	21.0	18.4	18.4	18.4
DAY TOT	16.1	17.2	17.2	17.2

% BELOW MAX GOAL SUMMARY

DAYPART	TODAY	WEEK TO DATE	MONTH TO DATE	YEAR TO DATE
1	15.3	14.1	14.1	14.1
2	26.0	23.4	23.4	23.4
3	10.2	16.1	16.1	16.1
4	22.2	23.9	23.9	23.9
5	16.8	20.4	20.4	20.4
DAY TOT	17.0	19.0	19.0	19.0

TOTAL CARS SUMMARY

DAYPART	TODAY	WEEK TO DATE	MONTH TO DATE	YEAR TO DATE
1	54	197	1896	93967
2	63	246	2362	98587
3	164	732	7425	232789
4	151	584	5935	192327
5	87	320	2982	101756
DAY TOT	519	2079	20600	1319426

TODAY'S WINDOW % CARS < MAX GOAL 52.6

DEMAND PRINT REPORTS

IMPORTANT NOTE: The demand print command is ignored by the system as long as a vehicle is present in the timing lane.

The HOURLY, DAYPART, and END OF DAY reports can be printed on demand for dates up to 31 days back. The timer stores all data on an hourly basis. This data is maintained until beginning of the next hour, when it is over written. The following sequences will generate the selected demand print reports:

•To demand print an HOURLY report:

1. Enter your security code.
2. Press **DEMAND PRINT**.
3. Press **SET MONTH**...., enter the desired month and day of month, press **ENTER**.
4. Press **SET 24 HOUR TIME**, enter the desired hour, press **ENTER**.
5. Press **DEMAND PRINT**, the timer will print the following report:

```
              14:00 - 15:00
                   HOURLY        ACCUM
AVG. MNU BD TIME    00:27        00:25
AVG. PAY WINDOW TIME 00:29       00:26
AVG. WINDOW TIME    00:31        00:27
AVG. TOTAL TIME     03:05        02:46
% BELOW MIN GOAL     75.0         93.0
% BELOW MAX GOAL     15.0          3.0
TOTAL CARS            004          029

DEMAND PRINT DATE 01/10/03
```

•To demand print a DAYPART report...

1. Enter your security code.
2. Press **DEMAND PRINT**.
3. Press **SET MONTH**...., enter the desired month and day of month, press **ENTER**.
4. Press **1** thru **5** depending upon the desired daypart, press **ENTER**.
5. Press **DEMAND PRINT**, the timer will print the following report:

```
     DAYPART 3      14:00 - 17:00

AVG. MNU BD TIME         00:25
AVG. WINDOW TIME         00:27
AVG. PAY WINDOW TIME     00:26
AVG. TOTAL TIME          02:46
% BELOW MIN GOAL          93.0
% BELOW MAX GOAL           3.0
TOTAL CARS                0029

DEMAND PRINT DATE 01/10/03
```

•To demand print an END OF DAY report:

1. Enter your security code.
2. Press **DEMAND PRINT**.
3. Press **SET MONTH**...., enter the desired month and day of month, press **ENTER**.
4. Press **DEMAND PRINT**, the timer will print the following report:

MENU BD AVG. TIME SUMMARY

DAYPART	TODAY	WEEK TO DATE	MONTH TO DATE	YEAR TO DATE
1	00:32	00:34	00:34	
2	00:38	00:38	00:38	
3	00:44	00:40	00:40	
4	00:40	00:39	00:39	
5	00:37	00:34	00:34	
DAY TOT	00:37	00:35	00:35	

PAY WINDOW AVG. TIME SUMMARY

DAYPART	TODAY	WEEK TO DATE	MONTH TO DATE	YEAR TO DATE
1	00:29	00:31	00.31	
2	00:35	00:35	00.35	
3	00:41	00:37	00.37	
4	00:37	00:36	00.36	
5	00:34	00:31	00.31	
DAY TOT	00:34	00:32	00.32	

SRV WIN AVG. TIME SUMMARY

DAYPART	TODAY	WEEK TO DATE	MONTH TO DATE	YEAR TO DATE
1	00:31	00:31	00:31	
2	00:31	00:22	00:22	
3	00:27	00:30	00:30	
4	00:37	00:29	00:29	
5	00:30	00:29	00:29	
DAY TOT	00:30	00:28	00:28	

TOTAL AVG. TIME SUMMARY

DAYPART	TODAY	WEEK TO DATE	MONTH TO DATE	YEAR TO DATE
1	03:07	03:09	03:09	
2	02:17	02:53	02:53	
3	04:52	04:02	04:02	
4	02:25	02:54	02:54	
5	03:54	03:49	03:49	
DAY TOT	03:27	03:25	03:25	

END OF DAY report printout continued:

```
% BELOW MIN GOAL SUMMARY
                    WEEK     MONTH      YEAR
                     TO       TO         TO
DAYPART    TODAY    DATE     DATE       DATE
   1       11.1     15.3     15.3
   2       18.4     19.3     19.3
   3       13.6     16.9     16.9
   4       16.0     15.9     15.9
   5       21.0     18.4     18.4
DAY TOT    16.1     17.2     17.2

% BELOW MAX GOAL SUMMARY
                    WEEK     MONTH      YEAR
                     TO       TO         TO
DAYPART    TODAY    DATE     DATE       DATE
   1       15.3     14.1     14.1
   2       26.0     23.4     23.4
   3       10.2     16.1     16.1
   4       22.2     23.9     23.9
   5       16.8     20.4     20.4
DAY TOT    17.0     19.0     19.0

TOTAL CARS SUMMARY
                    WEEK     MONTH      YEAR
                     TO       TO         TO
DAYPART    TODAY    DATE     DATE       DATE
   1         54      197      1896
   2         63      246      2362
   3        164      732      7425
   4        151      584      5935
   5         87      320      2982
DAY TOT    519     2079     20600

DEMAND PRINT DATE 01/10/03
```

Please note that the demand print END OF DAY report does not contain year to date data. This is because the year to date registers are continuously being updated and are no longer aligned with past hourly or daypart data.

INDIVIDUAL CAR PRINT REPORT

The INDIVIDUAL CAR PRINT report function can be enabled or disabled using the keypad. The report is printed after the vehicle leaves the detection area. For 2 lane operation, the printing function is delayed until both cars have left the detection area. The following is an example of the INDIVIDUAL CAR PRINT report:

INDIVIDUAL CAR PRINT report printout:

```
CAR #008  TIME 12:48:42
MENU BOARD TIME          00:15
PAY WINDOW TIME          00:39
SERVICE WINDOW TIME      00:29
TOTAL LINE TIME          02:56

CAR #009  TIME 12:52:33
MENU BOARD TIME          00:20
PAY WINDOW TIME          00:19
SERVICE WINDOW TIME      00:31
TOTAL LINE TIME          03:09

CAR #010  TIME 12:56:08
MENU BOARD TIME          00:21
PAY WINDOW TIME          00:24
SERVICE WINDOW TIME      00:35
TOTAL LINE TIME          03:20

CAR #011  TIME 13:01:27
MENU BOARD TIME          00:33
PAY WINDOW TIME          00:21
SERVICE WINDOW TIME      00:35
TOTAL LINE TIME          02:17

CAR #012  TIME 13:05:53
MENU BOARD TIME          00:27
PAY WINDOW TIME          00:26
SERVICE WINDOW TIME      00:36
TOTAL LINE TIME          03:12
```

8 INSTALLATION INSTRUCTIONS

NOTE TO INSTALLER:

Read the entire instructions before proceeding. Pay particular attention to the do's and don'ts listed on the installation overview.
We have provided an installation checklist for the installer and manager to sign after the installation is complete. For technical support call: 1-800-543-7441

MATERIALS SUPPLIED FOR THE INSTALLATION:

(3) #10-1" screws and plastic wall anchors to mount the control panel
(2) #10-1" screws and plastic wall anchors to mount the sonar
(2) #10-1" screws and plastic wall anchors to mount the remote display
(6) cable clamps for securing the sonar cable
(6) cable clamps for securing the printer cable
(5) cable clamps for securing the remote display cable
(3) cable clamps for securing the transformer cable
(2) remote display cable harness kit
(2) modem cable harness kit

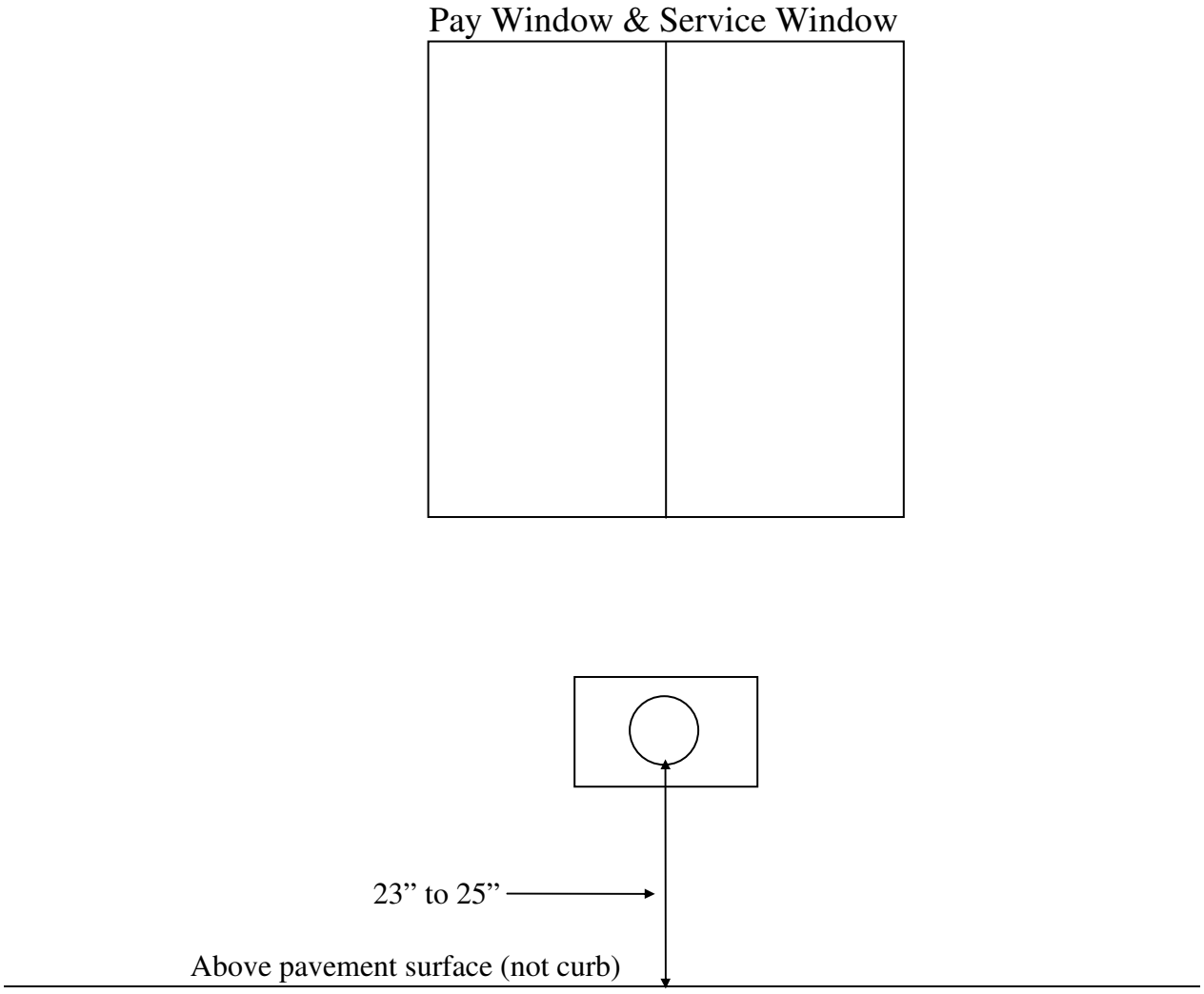
MATERIALS NEEDED BY INSTALLER:

3/8" diameter **masonry** bit 18" long
1/4" diameter **masonry** bit
Wire stripper and cutter
Phone jack crimper and cutter
Phillips screwdriver
Small flat bladed screwdriver
Fish tape and/or pull wire
Tape measure
Level
Stepladder
Cordless Drill
Volt Meter

STEP 1: INSTALL VEHICLE DETECTOR (SONAR OR LOOP)

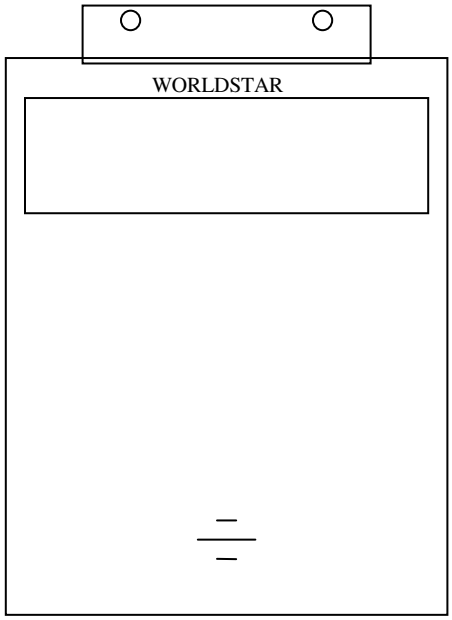
• STEP 1A: SONAR DETECTORS (Pay Window & Service Window)

1. Locate the sonar 23" to 25" from the ground level. The objective is to have the sonar looking at the side of a vehicle as directly as possible.
2. Locate the sonar as close to the center of the window as possible, keeping the sonar at least 36" from any pole mounted in the cement close to the window.



NOTE: The sonar unit is housed in a special enclosure and is simply mounted to the wall.

STEP 2: LOCATE POSITION OF CONTROL PANEL



Typically, the control panel is located on the wall outside the drive-thru booth, the manager's office, or close to the drive-thru service area. Do not place the control panel so high on the wall that it is difficult to reach, since easy access is needed for programming, data collection, and operation of the controls. Do not place the control panel within several feet of the intercom microphone, as the audible alert from the control panel will interfere with the order taking conversation via the intercom system.

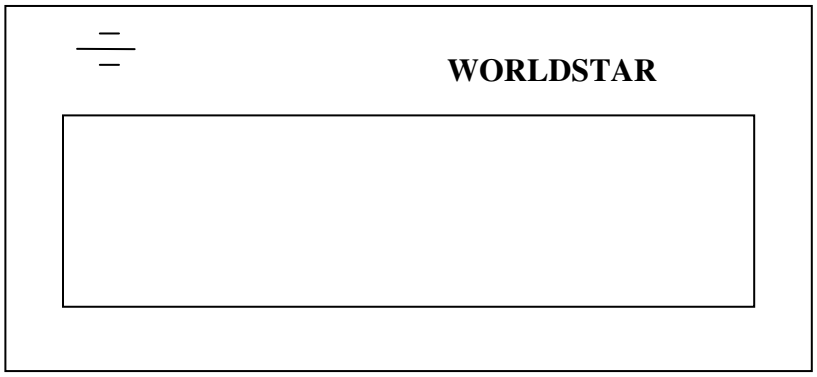
STEP 3: INSTALL THE CONTROL PANEL

Never hammer or unnecessarily vibrate the control panel. The electronics require delicate handling. Place and level the control panel on the wall where it is to be mounted and mark the two holes on top of the control panel. Drill the mounting holes using ¼" diameter masonry bit. Insert the anchors into the wall and start the screws in the anchors, but only screw in about ¾ of the way. Mount the control panel on the two screws and tighten down. Remove the wire harness cover plate. Drill the third hole inside of control panel. Loosen the two top screws and remove the control panel. Insert the third anchor. Mount the control panel. Do not tighten the screws down at this time because all cables must enter through the back of the control panel.

STEP 4: ROUTE AND TERMINATE BOTH SONAR CABLES

DO NOT ROUTE the sonar cable next to existing wires, or in conduit with other wires. Although the cable is shielded, it is possible for interference to be picked up through the cable. Route the cable into the control panel through the back and remove excess cable. Remove 2" of cable jacket, taking care not to nick the inner conductors. Insert the four wires under the respective terminals and tighten the screws. *Do not over tighten!* Install cable clamps every 8" to 12" as needed.

STEP 5: LOCATE POSITION OF REMOTE DISPLAY



Typically, the remote display is mounted in the kitchen, the manager's office or in the drive-thru area, depending where the control panel is mounted. Height is not an issue. Once mounted, no access is needed. Do not place the remote display within several feet of the intercom microphone. If it is too close to the microphone the audible alert from the remote display will interfere with the order taking conversation via the intercom system.

STEP 6: INSTALL REMOTE DISPLAY

Use the Remote Display drill template provided to mark mounting holes. Drill the mounting holes using ¼" diameter masonry bit. Insert the anchors into the wall. Start the screws into the anchors, but only screw in about ¾ of the way. Mount the back panel on the two screws and tighten down. *Do not over tighten!* Place remote display on back panel and re-insert the four assembly screws.

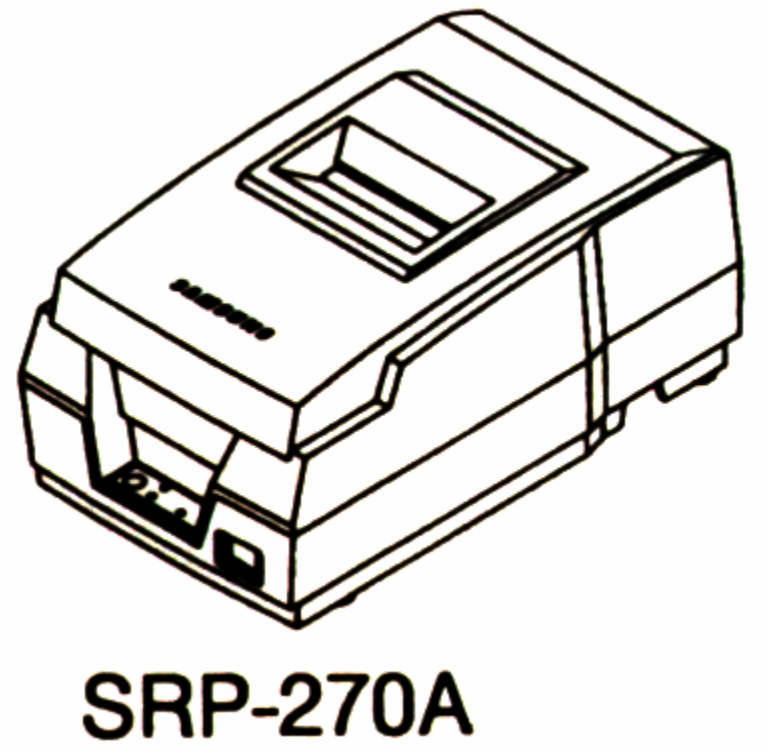
STEP 7: ROUTE AND TERMINATE REMOTE DISPLAY CABLE

Crimp phone plug onto end of cable taking care to install the connector with the same color sequence as the opposite end. Insert the jack into the remote display. Route the display cable over to the control panel and insert the cable through the back. Cut to necessary length and crimp on the other phone plug and insert plug into the respective jack. (Display 1 = Total Time) (Display 2 = Window Time). Install cable clamps every 8" to 12" as needed.

STEP 8: ROUTE AND TERMINATE COMPUTER CABLE

Route the modem cable from the Timer to the back office computer. Hook up at timer end. Leave the connector disconnected at the computer end. A qualified computer technician will hook up connector to computer and install the software. Install cable clamps every 8" to 12" as needed.

STEP 9: INSTALL PRINTER, ROUTE AND TERMINATE PRINTER CABLE



The printer should be located in the manager's office. It must be within 4 feet of a 110V outlet. This printer requires 3" non-thermal paper and also uses a ribbon. Route the printer cable from the control panel to the printer. Note that the end of the cable with the plug goes to the printer. The end of the cable that does not have a plug goes to the control panel. Insert the non-plug end into the back of the control panel. Remove 2" of cable jacket, taking care not to nick the inner conductors. Tightly twist the bare shield wire with the black wire. Insert the three wires under the respective terminals and tighten the screws. *Do not over tighten!* Route the printer cable from the control panel to the printer. Plug the 25 pin RS-232 connector into the printer and secure the 2 screws. Install cable clamps every 8" to 12" as needed.

Note: The printer cable may be routed above a drop ceiling, if desired.

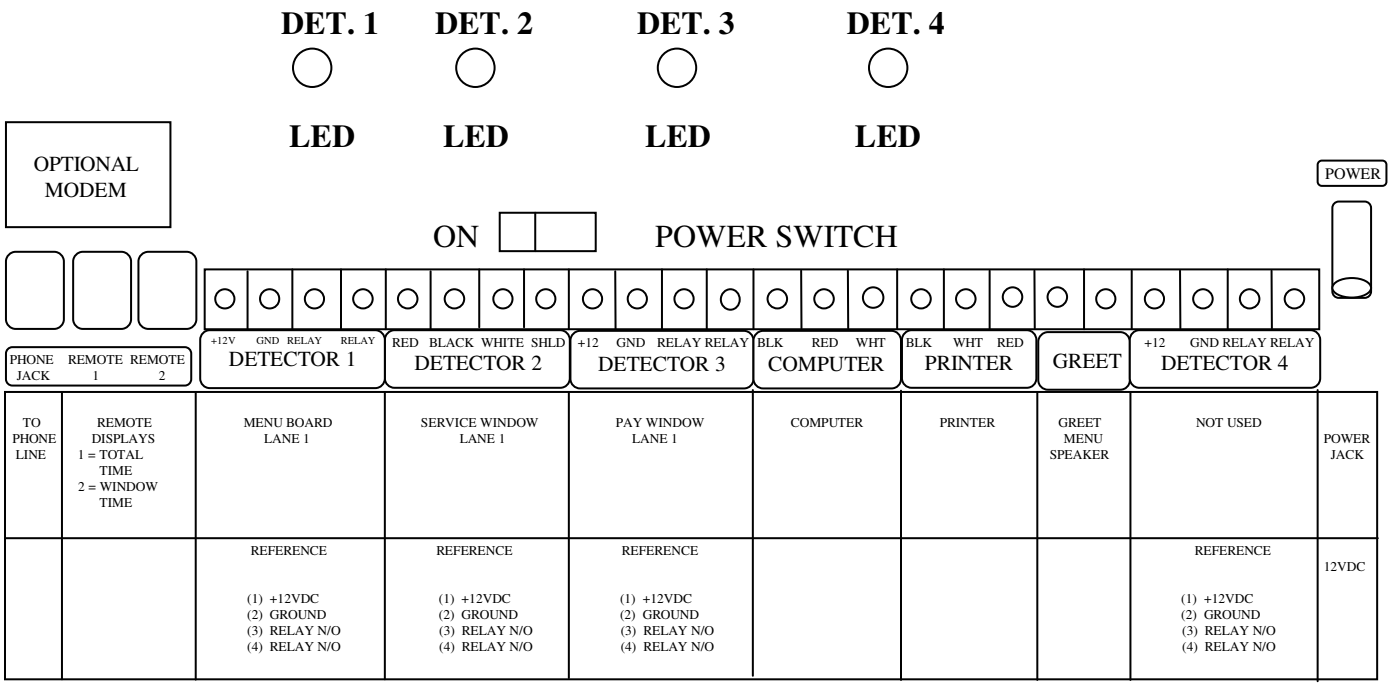
STEP 10: INSTALL CONTROL PANEL TRANSFORMER (12VDC)

Route the cable between the 110 volt outlet and control panel. Allow 2 to 3 inches of excess cable at the outlet to enable easy removal and insertion of the transformer. The transformer connector must be routed in back of the control panel. Insert connector into power jack.. *Do not plug in transformer until all of your connections have been double checked!* Install cable clamps every 8" to 12" as needed.

STEP 11: COMPLETION OF INSTALLATION

After all of your connections have been double checked, refer to step 3 and tighten each of the 3 screws on the control panel. Plug in transformer. Refer to programming instructions for initial setup. If all functions are operational, you may now install the wire harness cover plate. Installation is complete.

WIRING DIAGRAMS



Note: Terminals 3 & 4 of Detector 1 go to Menu Board loop detector.
Terminals 3 & 4 of Detector 2 go to Service Window loop detector.
Terminals 3 & 4 of Detector 3 go to Pay Window loop detector.

9 WARRANTY

LIMITED WARRANTY INFORMATION

- Worldstar Products, Inc. warrants to you the end-user customer, that Worldstar Products, Inc. hardware will be free from defects in materials and workmanship for a period of 3 years from the date of purchase. If Worldstar Products, Inc. receives notice of such defects during the warranty period, Worldstar Products, Inc. will, at its option, either repair or replace products which prove to be defective.

- Peripheral equipment (i.e. printers) offered for sale by Worldstar Products, Inc. will be covered by the warranty given by the manufacturer of the equipment.

- Warranty does not apply to defects resulting from (a) accident, neglect, abuse or misuse, (b) software, interfacing, parts or supplies not supplied by Worldstar Products, Inc. (c) unauthorized modification, (d) operation outside of the published environmental specifications for the product, or (e) improper site preparation or maintenance.

- For warranty service, first call 1-800-543-7441. If you are instructed to return equipment for repair or replacement, we recommend insuring the equipment for shipping. Shipping damage resulting from inadequate packaging is the customer's responsibility. Use the original packing materials whenever possible.